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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09-18,584	07/31/2001	Jin-Shan Wang	82817HEC	1795

7500 12/17/2003  
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EXAMINER

SHOSHO, CALLIE E

ART UNIT PAPER NUMBER

1714

DATE MAILED: 12/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/918,584

**Applicant(s)**

WANG ET AL.

**Examiner**

Callie E. Shosho

**Art Unit**

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 10-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 10 and 12-18 is/are rejected.
- 7) ☒ Claim(s) 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 10/20/03.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

**DETAILED ACTION**

1. All outstanding objections and rejections except for those described below are overcome by applicants' amendment filed 10/20/03.

**Information Disclosure Statement**

2. It is noted that Wang et al. (U.S. 6,252,025) has been stricken from the IDS filed 10/20/03 given that it was already cited on the PTO-892 attached to the office action mailed 4/21/03. Further, Winnik et al. (U.S. 5,098,475) has been stricken from the IDS filed 10/20/03 given that it was already cited on the IDS filed 10/18/01.

**Claim Rejections - 35 USC § 103**

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1, 10, 12, 14, and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sacripante et al. (U.S. 6,025,412) in view of Figuly (U.S. 5,136,014).

The rejection is adequately set forth in paragraph 10 of the office action mailed 4/21/03 and is incorporated here by reference.

5. Claims 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sacripante et al. in view of Figuly as applied to claims 1, 10, 12, 14, and 17-18 above, and further in view of *Polymer Science Dictionary*.

The rejection is adequately set forth in paragraph 11 of the office action mailed 4/21/03 and is incorporated here by reference.

6. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sacripante et al. in view of Figuly as applied to claims 1, 10, 12, 14, and 17-18 above, and further in view of Evans et al. (U.S. 6,468,338).

The rejection is adequately set forth in paragraph 12 of the office action mailed 4/21/03 and is incorporated here by reference.

7. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sacripante et al. in view of Figuly as applied to claims 1, 10, 12, 14, and 17-18 above, and further in view of either Chen et al. (U.S. 6,431,700) or Evans et al. (U.S. 6,001,161).

The rejection is adequately set forth in paragraph 13 of the office action mailed 4/21/03 and is incorporated here by reference.

#### **Response to Arguments**

8. Applicants' arguments regarding Lent et al. (U.S. 5,929,134) and Wang et al. (U.S. 6,252,025) have been fully considered but they are moot in view of the discontinuation of the use of these references against the present claims.

9. Applicants' arguments filed 10/20/03 have been fully considered but, with the exception of arguments relating to Lent et al. and Wong et al., they are not persuasive.

Specifically, applicants argue that Sacripante et al. is not a relevant reference against the present claims given that Sacripante et al. is directed to an ink jet ink including particles of a dye-polymer resin dispersed in a liquid vehicle and given that combining Figuly with Sacripante et al. would result in the formation of particles of the dye-polymer resin wherein the resin is a hyperbranched polymer while the present invention does not include particles.

However, it is noted that the present claims only require a hyperbranched polymeric dye comprising hyperbranched polymer having dye chromophore incorporated into the polymer backbone. There is nothing in the present claims that excludes the hyperbranched polymeric dye from being in the form of particles. That is, the present claims are open to all hyperbranched polymeric dyes including those in the form of particles.

Applicants argue that the combination of Sacripante et al. with Figuly would not be desirable in the claimed invention because particles do not allow reliable firing of the ink jet ink composition. However, applicants have offered no evidence to support this position.

In light of the above, it is the examiner's position that the combination of Sacripante et al. with Figuly remains applicable against the present claims.

**Allowable Subject Matter**

10. Claim 11 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 11 would be allowable if rewritten in independent form given that there is no disclosure or suggestion in the "closest" prior Sacripante et al. (U.S. 6,025,412) or Figuly (U.S.

5,136,014) of hyperbranched polymer having a dye chromophore incorporated into the polymer backbone prepared by chain polymerization of monomer of the formula  $M^1-R^7-M_m^2$  as required in present claim 11.

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

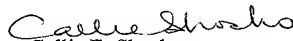
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Application Number: 09/918,584

Page 6

Art Unit: 1714

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Callie E. Shosho  
Primary Examiner  
Art Unit 1714

CS  
12/8/03